

**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (currently amended): An aircraft navigation aid method, ~~characterized in that it comprises~~ comprising the following steps ~~consisting in~~:

a) computing a feeler line ~~according to the wind, in other words the~~ ground path that ~~[[the]]~~ an aircraft would follow if a turn at the maximum rate applicable to the current flight phase of the aircraft were to begin at that instant~~[[,]]~~ ; and

b) displaying on a navigation screen the feeler line and a ground path to be captured, in order to determine how to place the aircraft in a turn in order to optimize the capture of the path to be captured.

2. (currently amended): The method as claimed in ~~the preceding~~ claim 1, ~~characterized in that it also comprises~~ comprising: ~~a step consisting in~~ giving ~~[[the]]~~ a turn command when the feeler line is tangential to the ground path to be captured.

3. (currently amended): The method as claimed in ~~any one of the preceding~~ claim~~[[s]]~~ 1, ~~characterized in that~~ wherein each computation and/or display and/or conditional turn command step is controlled automatically or by the pilot of the aircraft.

4. (currently amended): The method as claimed in ~~any one of the preceding~~ claim~~[[s]]~~ 1, ~~characterized in that~~ wherein ~~[[the]]~~ a form of a right feeler line is given by a parametric equation of the form:

$$\begin{cases} x = [R_{air}[1 - \cos(t \dot{\theta})] + V_x t] \cos d - [R_{air} \sin(t \dot{\theta}) + V_y t + D_v] \sin d !! \\ y = [R_{air}[1 - \cos(t \dot{\theta})] + V_x t] \sin d + [R_{air} \sin(t \dot{\theta}) + V_y t + D_v] \cos d !! \end{cases}$$

$R_{air}$  being the radius of the turn that the airplane would have without wind,  $\dot{\theta}$  being the angular speed of the airplane in the air during the turn that the airplane would have without wind,  $V_x$  and  $V_y$  being the components of the wind speed vector,  $t$  being the time with  $t = 0$  at the start of the turn,  $D_v$  being the distance to the turn and  $d$  being the drift angle.

5. (currently amended): The method as claimed in ~~any one of claim[[s]] 1 to 3,~~ ~~characterized in that the~~ wherein a form of a left feeler line is given by a parametric equation of the form:

$$\begin{cases} x = [R_{air} [1 - \cos(t \dot{\theta})] + V_x t] \cos d - [R_{air} \sin(t \dot{\theta}) + V_y t + D_v] \sin d \\ y = [R_{air} [1 - \cos(t \dot{\theta})] + V_x t] \sin d + [R_{air} \sin(t \dot{\theta}) + V_y t + D_v] \cos d \end{cases}$$

$R_{air}$  being the radius of the turn that the airplane would have without wind,  $\dot{\theta}$  being the angular speed of the airplane in the air during the turn that the airplane would have without wind,  $V_x$  and  $V_y$  being the components of the wind speed vector,  $t$  being the time with  $t = 0$  at the start of the turn,  $D_v$  being the distance to the turn and  $d$  the drift angle.

6. (currently amended): An onboard aircraft navigation aid device comprising at least a program memory and a user interface, ~~characterized in that the program memory comprises~~ comprising: a program memory having a feeler line computation program, ~~in other words the for~~ computing a ground path that the aircraft would follow if a turn at the maximum rate applicable to the current flight phase of the aircraft were to begin at that instant, and a program for displaying on the user interface a path to be captured and the feeler line.

7. (currently amended): The device as claimed in ~~the preceding~~ claim 6, ~~characterized in that~~ wherein the user interface comprises means of controlling the computation of the feeler line.

8. (currently amended): The device as claimed in ~~the preceding~~ claim 7, ~~characterized in that~~ wherein the user interface also comprises means of controlling the display of the feeler line.

9. (new) The method as claimed in claim 2, wherein each computation and/or display and/or conditional turn command step is controlled automatically or by the pilot of the aircraft.

10. (new): The method as claimed in claim 2, wherein a form of a right feeler line is given by a parametric equation of the form:

$$\begin{cases} x = [R_{air}[1 - \cos(t \dot{\theta})] + V_x t] \cos d - [R_{air} \sin(t \dot{\theta}) + V_y t + D_v] \sin d \\ y = [R_{air}[1 - \cos(t \dot{\theta})] + V_x t] \sin d + [R_{air} \sin(t \dot{\theta}) + V_y t + D_v] \cos d \end{cases} \quad (1)$$

$R_{air}$  being the radius of the turn that the airplane would have without wind,  $\dot{\theta}$  being the angular speed of the airplane in the air during the turn that the airplane would have without wind,  $V_x$  and  $V_y$  being the components of the wind speed vector,  $t$  being the time with  $t = 0$  at the start of the turn,  $D_v$  being the distance to the turn and  $d$  being the drift angle.

11. (new): The method as claimed in claim 3, wherein a form of a right feeler line is given by a parametric equation of the form:

$$\begin{cases} x = [R_{air}[1 - \cos(t \dot{\theta})] + V_x t] \cos d - [R_{air} \sin(t \dot{\theta}) + V_y t + D_v] \sin d \\ y = [R_{air}[1 - \cos(t \dot{\theta})] + V_x t] \sin d + [R_{air} \sin(t \dot{\theta}) + V_y t + D_v] \cos d \end{cases} \quad (2)$$

$R_{air}$  being the radius of the turn that the airplane would have without wind,  $\dot{\theta}$  being the angular speed of the airplane in the air during the turn that the airplane would have without wind,  $V_x$  and  $V_y$  being the components of the wind speed vector,  $t$  being the time with  $t = 0$  at the start of the turn,  $D_v$  being the distance to the turn and  $d$  being the drift angle.

12. (new): The method as claimed in claim 2, wherein a form of a left feeler line is given

- by a parametric equation of the form:

$$\begin{cases} x = [R_{air}[1 - \cos(t \dot{\theta})] + V_x t] \cos d - [R_{air} \sin(t \dot{\theta}) + V_y t + D_v] \sin d \\ y = [R_{air}[1 - \cos(t \dot{\theta})] + V_x t] \sin d + [R_{air} \sin(t \dot{\theta}) + V_y t + D_v] \cos d \end{cases}$$

$R_{air}$  being the radius of the turn that the airplane would have without wind,  $\dot{\theta}$  being the angular speed of the airplane in the air during the turn that the airplane would have without wind,  $V_x$  and  $V_y$  being the components of the wind speed vector,  $t$  being the time with  $t = 0$  at the start of the turn,  $D_v$  being the distance to the turn and  $d$  the drift angle.

13. (new): The method as claimed in claim 3, wherein a form of a left feeler line is given by a parametric equation of the form:

$$\begin{cases} x = [R_{air}[1 - \cos(t \dot{\theta})] + V_x t] \cos d - [R_{air} \sin(t \dot{\theta}) + V_y t + D_v] \sin d \\ y = [R_{air}[1 - \cos(t \dot{\theta})] + V_x t] \sin d + [R_{air} \sin(t \dot{\theta}) + V_y t + D_v] \cos d \end{cases}$$

$R_{air}$  being the radius of the turn that the airplane would have without wind,  $\dot{\theta}$  being the angular speed of the airplane in the air during the turn that the airplane would have without wind,  $V_x$  and  $V_y$  being the components of the wind speed vector,  $t$  being the time with  $t = 0$  at the start of the turn,  $D_v$  being the distance to the turn and  $d$  the drift angle.